APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/273,833	03/22/1999	RYOHEI KUKI	TI-28612	7627

23494 7590 01/09/2004		EXAMINER
TEXAS INSTRUMENTS INCORPORATED		KUMAR, PANKAJ

ART UNIT	PAPER NUMBER
2631	

TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

DATE MAILED: 01/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _20 May 2003_ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-25_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-4, 5, 6, 7, 8, 9, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23_ is/are rejected.

7)☒ Claim(s) _10,11,16,17,24 and 25_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed have been fully considered and they are not persuasive.

1.   Double Patenting

2.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

        A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

        Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3.   Claims 1-4, 5, 6, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 6, 7, 9, 12, 14, 16, 18, 22, 24, 25, 28, 29, respectively, of copending Application No. 09/229945. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons below.

        This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4.   As per claim 1 in this application, the claim 1 in the copending application also teaches the same limitations except that this application added the following in the preamble: correcting media noise errors. It is inherent for claim 1 of the copending application to include this.

2.   Also, as per claim 1, the application added "adding a predetermined value to the filtered output signal when a predetermined error event pattern due to media noise occurs in said recovered data output signal;" This limitation does not exist in the copending application.

3.   Yamakawa USPN 5844741 teaches in figure 1, adding a predetermined value (Yamakawa fig. 1: 25 will add a positive or negative value to perform data correction; it is a predetermined value since the addition was determined in a prior element – element 21) to the filtered output signal (Yamakawa fig. 1: filter 14 is prior to elements 25 and 21) when a predetermined error event pattern (Yamakawa fig. 1: "error signal"; predetermined since it is prior to data correction circuit) due to media noise (Yamakawa fig. 1: 11) occurs in recovered data output signal.

4.   It would have been obvious to one skilled in the art at the time of the invention to modify the copending application with the limitations of Yamakawa. One would be motivated to do so since one would want some type of action to be taken when there is an error and Yamakawa teaches the action to take when there is an error. Also, this application is substantially the same as the copending application except for the following change to the body: the application added "adding a predetermined value to the filtered output signal when a predetermined error event pattern due to media noise occurs in said recovered data output signal;" and removed the following which was in the copending application: "generating an error event pattern indicating signal ..." Adding a value generates a signal. Adding a value due to an error event generates a signal due to an error.

5.   As per claims 2-6 in this application, the copending application teaches the same

limitations.

6.   As per claim 12, the copending application teaches the same limitations as this

application except:

    a.   equalization is not a limitation in this application but is a limitation in the

copending application.

        i.   It is common knowledge to omit elements.

        ii.   It would have been obvious to one skilled in the art at the time of the

        invention to modify the copending application by removing equalization.

        iii.   One would be motivated to do so since equalization is not necessary to

        performing the remaining steps. Also it has been held that omission of an element

        and its function in a combination where the remaining elements perform the same

        functions as before involves only routine skill in the art. In re Karlson, 136 USPQ

        184.

    b.   detecting from a transducer head is a limitation in this application but is not

explicitly stated as a limitation in the copending application.

        iv.   It is common knowledge to select a know material, such as a transducer

        head, based on its suitability for the intended use.

        v.   It would have been obvious to one skilled in the art at the time of the

        invention to modify the copending application to include transducer head.

        vi.   One would be motivated to do so since it has been held to be within the

        general skill of a worker in the art to select a known material (in this case a

transducer head) on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

c.   The limitation of "adding a predetermined value to the filtered output signal when a predetermined error event pattern due to media noise occurs in said recovered data output signal;" does not exist in the copending application.

> vii.   Yamakawa USPN 5844741 teaches in figure 1, adding a predetermined value (Yamakawa fig. 1: 25 will add a positive or negative value to perform data correction; it is a predetermined value since the addition was determined in a prior element – element 21) to the filtered output signal (Yamakawa fig. 1: filter 14 is prior to elements 25 and 21) when a predetermined error event pattern (Yamakawa fig. 1: "error signal"; predetermined since it is prior to data correction circuit) due to media noise (Yamakawa fig. 1: 11) occurs in recovered data output signal.

> viii.   It would have been obvious to one skilled in the art at the time of the invention to modify the copending application with the limitations of Yamakawa.

> ix.   One would be motivated to do so since one would want some type of action to be taken when there is an error and Yamakawa teaches the action to take when there is an error. Also, this application is substantially the same as the copending application except for the following change to the body: the application added "adding a predetermined value to the filtered output signal when a predetermined error event pattern due to media noise occurs in said recovered data output signal;" and removed the following which was in the

copending application: "generating an error event pattern indicating signal ..."

Adding a value generates a signal. Adding a value due to an error event generates

a signal due to an error.

7.   As per claims 13-15 in this application, the copending application teaches the same

limitations.

8.   Claims 18-23 are rejected for double patenting based on reasons similar to those cited

above.

9.   Claims 7-9 are provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over copending Application No.

09/229945. Although the claims are not identical, they are not patentably distinct from each

other because of the reasons below.

10.   As per claims 7-9 in this application, the copending application teaches the elements of

claim 1 and EPR4 as discussed above.

    d.   What the copending application does not teach is wherein said predetermined

    value in an EPR4 channel is –A(claim7) or +A(claim 8) or 0(claim 9) when said

    predetermined error event pattern is "1X1"(claims 7 and 9) or "0X0"(claims 8 and 9)

    where X is either 1 or 0.

    e.   It is common knowledge to have some type of value when some error event

    pattern occurs.

f.   It would have been obvious to one skilled in the art at the time of the invention to

modify the copending application with having a negative value when an error event

pattern is 111 or 101.

g.   One would be motivated to do so since it has been held that where the general

conditions of a claim are disclosed in the prior art, discovering the optimum or workable

ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. One would also

be motivated to do so since it has been held that discovering an optimum value of a result

effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205

USPQ 215 (CCPA 1980) . One would also be motivated to do so since it has been held

that lacking any criticality, changing the size or range of the prior art parts does not make

the claimed invention patentable over that prior art (In re Rose, 105 USPQ 237).

Allowable Subject Matter

11.   Claims 10, 11, 16, 17, 24, 25 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

12.   The following is a statement of reasons for the indication of allowable subject matter for

claims 10, 11, 16, 17, 24, 25: The art of record does not suggest the respective claim

combinations together and nor would the respective claim combinations be obvious with: tables
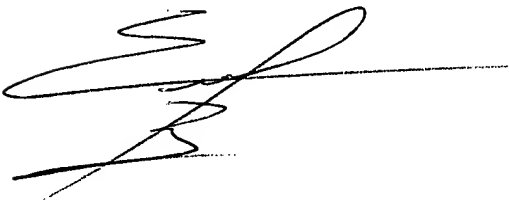
in the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Mon, Tues, Wed and Thurs after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

PK